

23 January 1965

MEMORANDUM FOR THE RECORD

SUBJECT: Trip Report: 19 January visit to []: for materials in association with "P.I. Performance Study #2" -- part of the Project DIMVIEW program

ATTENDEES:



For the current accelerated study on P.I. performance as a function of stereo convergence and obliquity, we are faced with a March deadline which makes any sort of overflights for acquiring actual photographs out of the question. We are thus, for the meanwhile, abandoning "objective" techniques which are being developed for the longer-term DIMVIEW program and are resorting to subjective "preference" tests similar to those recently used for [] color evaluation program.

DD/S&T has been funding a project with [] to produce a detailed, realistic scale model which can be photographed for the purposes of simulating high altitude, high resolution photography. Consequently, we have turned to [] as an expeditious source of simulated photography for the performance study #2. Funding will be assumed by DD/S&T under their existing contract with [] on this particular effort. The two efforts are entirely compatible since one of DD/S&T's charges to [] is to prove the "utility" of the model in its present state, before further funds are allotted.

The model is only partially completed -- to an 8' x 8' area -- but will eventually extend over a 20' x 20' area. It is, however, luxurious in detail and contains a variety of terrain and subject matter: for instance, a rural area with hilly, natural landscape; a cliff of some proportion which forms the boundary to a superhighway and provides the support for one side of a bridge which crosses over the highway; a railroad track (with trains) parallel to the highway; a light industry; a housing development with detail down to the size of lawnmowers and a bird approaching a birdbath; cars, etc. . . . Plans are in store for at least part of an airport, military activity in the natural terrain, an apartment building.

DDR-Dupe

Trip Report -- [] 19 January 1965

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The model is housed in a ramshackled, unheated old theatre in [] center. "Aerial" photographs can be made from a catwalk at approximately 55-60' above the model, which is on a revolving disc and can be oriented as preferred.

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Sky lighting is simulated by a cone of lights which are movable and form the framework of a sort of enormous tepee over the model. A sun can be "hung" at almost any elevation and azimuth. Our interest is, of course, in simulating the sun angles common to the Soviet geography.

We specified two sets of photographs: 1.) at 0° obliquity, stereo convergences of 10° , 15° , 20° , and 30° ; 2.) each of the above convergences at obliquities of 10° , 20° , 30° , 45° and 60° .

Priorities will be put on the $0^{\circ}/0^{\circ}$ reference vertical, on angles of convergence between 20° and 30° , and on obliquities of 20° , 45° and 60° . Each condition is to be photographed four times with two varying sun angles and three orientations of the model for different stereo effects. Not all of the photographs will be used, but we hope to provide the [] [], people with some alternatives from which they can narrow a selection as they see fit.

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All other specifications which we have set pertain specifically to simulating one particular new acquisition system.

[] is coordinating this short-term effort for us because of some special clearances which we share; and [] is acting as technical advisor for the [] crew.

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Development Branch, P & D S